

ABSTRACT

A calcium phosphate bone cement setting to a calcium-deficient hydroxyl apatite is modified by an organic phosphate ester of orthophosphoric acid or a salt of an organic phosphate ester. The base cement contains preferably tricalcium phosphate, dicalcium phosphate (anhydrous), calcium carbonate and precipitated hydroxyl apatite. The organic phosphate ester is added to the base cement in an amount of 0.5 to 5 percent by weight. The bone cement can be modified further by adding mineralized collagen I.